

## ABSTRAK

### PENGEMBANGAN *E-BOOK* BERBASIS REPRESENTASI KIMIA PADA MATERI STOIKIOMETRI

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Penelitian ini bertujuan untuk mengembangkan *e-Book* berbasis representasi kimia pada materi stoikiometri, mendeskripsikan karakteristik *e-Book* berbasis representasi kimia pada materi stoikiometri yang dikembangkan, dan mendeskripsikan validitas, tanggapan guru, serta tanggapan siswa terhadap *e-Book* berbasis representasi kimia pada materi stoikiometri. Desain penelitian yang digunakan pada pengembangan ini adalah *Research and Development* (R&D) oleh Borg and Gall (1983). Responden pada tahap penelitian dan pengumpulan informasi adalah 5 guru mata pelajaran kimia dan 10 siswa kelas X MIPA dari SMA Negeri 13 Bandar Lampung, 10 siswa kelas X MIPA dari SMA Negeri 14 Bandar Lampung, dan 10 siswa kelas X MIPA dari SMA Negeri 15 Bandar Lampung. Responden uji coba lapangan dilakukan pada 3 guru mata pelajaran kimia dan 30 siswa kelas X MIPA SMA Negeri 13 Bandar Lampung.

Berdasarkan hasil validasi ahli terhadap *e-Book* yang dikembangkan, diperoleh persentase rata-rata pada aspek kesesuaian isi sebesar 84,16%, aspek konstruksi sebesar 86%, aspek keterbacaan sebesar 88,12%, aspek kemenarikan sebesar 87,14%, keempat aspek tersebut memiliki kriteria sangat tinggi. Hasil uji coba lapangan diperoleh persentase rata-rata skor tanggapan guru pada aspek kesesuaian isi sebesar 93,88%, aspek keterbacaan sebesar 94,58%, aspek kemenarikan sebesar 94,28%, ketiga aspek tersebut memiliki kriteria sangat tinggi. Persentase rata-rata skor tanggapan siswa pada aspek keterbacaan sebesar 88,44%, dan aspek kemenarikan sebesar 89,99%, kedua aspek tersebut memiliki kriteria sangat tinggi. Berdasarkan hal tersebut, maka *e-Book* berbasis representasi kimia pada materi stoikiometri dinyatakan valid.

Kata Kunci : *e-Book*, representasi kimia, stoikiometri.

## **ABSTRACT**

### **DEVELOPMENT E-BOOK BASED ON CHEMICAL REPRESENTATION OF STOICHIOMETRY**

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This research aim to develop e-Book of stoichiometry based on chemical representation, to describe the characteristics of *e-Book* based on chemical representation on stoichiometry materials developed, and describe validity, teacher responses, and student responses to *e-Book* based on chemical representation on stoichiometry material. The research design used in this development is Research and Development (R&D) by Borg and Gall (1983). Respondents for the research and information collecting is 5 chemistry teachers and 10 students of class X MIPA from SMA Negeri 13 Bandar Lampung, 10 students of class X MIPA from SMA Negeri 14 Bandar Lampung, and 10 students of class X MIPA from SMA Negeri 15 Bandar Lampung. Object of field testing is 3 chemistry teachers and 30 students of class X MIPA at SMA Negeri 13 Bandar Lampung.

Based on the results of the validation of e-Book , the average percentage of the content suitability aspect is 84.16%, the construction aspect is 86%, the readability aspect is 88.12%, the attractiveness aspect is 87.14%, the four aspects has very high criteria. The results of field trials obtained an average percentage score of teacher responses on the content suitability aspect of 93.88%, the readability aspect of 94.58%, the attractiveness aspect of 94.28%, the three aspects have very high criteria. The average percentage score of student responses on the readability aspect is 88.44%, and the attractiveness aspect is 89.99%, both aspects have very high criteria. Based on this, the e-Book based on chemical representation on stoichiometry material declared valid.

Keywords: *e-Book*, chemical representation, stoichiometry.